WHAT IS CLAIMED IS:

1. An electrically powered compressor of enclosed configuration, having

a casing enclosing an internal space, with at least one refrigerant intake aperture formed in said casing for intake of an externally supplied refrigerant into said internal space, and a refrigerant outlet aperture for outputting said refrigerant to the exterior of said casing,

an electric motor disposed within said casing, having a stator formed of a stator core that is fixedly attached to said casing, a stator coil formed on the stator core, a rotor which is mounted for rotation with respect to said stator, and a drive shaft which is fixedly attached to said rotor,

a compressor section disposed within said casing, driven by said electric motor for compressing said refrigerant which has entered said internal space from said refrigerant intake aperture and for impelling said refrigerant through said refrigerant outlet aperture in a compressed condition; wherein

said stator coil is a segment-configuration coil formed of a plurality of coil segments each formed of an electrical conductor that is of substantially rectangular shape in cross-section, with said coil segments being

mutually electrically connected in a predetermined arrangement, and

said refrigerant intake aperture(s) is located such as to direct a flow of said refrigerant onto at least one of a pair of axially opposed coil end portions of said stator coil.

2. The electrically powered compressor as claimed in claim 1, wherein a first one of said pair of coil end portions is located relatively far from said compressor section and a second one of said pair is located relatively close to said compressor section, and wherein said refrigerant intake aperture is a single aperture which is located such as to direct said flow of refrigerant onto said first one of said coil end portions.

3. The electrically powered compressor as claimed in claim 2, wherein said refrigerant intake aperture is disposed immediately facing an outer periphery of said first coil end portion, and wherein said compressor intake aperture is located close to an outer periphery of said second coil end portion.

4. The electrically powered compressor as claimed in claim 2, wherein at least one of said stator core and said

rotor is formed with a plurality of axially extending through-holes, for enabling passage of a part of a flow of said refrigerant from said first coil end portion towards said compressor intake aperture.

5. The electrically powered compressor as claimed in claim 1, comprising a plurality of insulator members, wherein

each of said coil segments is formed to be substantially U-shaped, with a curved portion connecting two parallel linear portions which extend to respective open end portions, with all of said each coil segment other than regions adjacent to respective tip portions of said open end portions thereof being covered by a thin layer of electrically insulating material,

respective ones of said coil segments are mutually connected at said tip portions of said open end portions by welding,

a part of each of said open end portions extending from a welded tip portion thereof is covered by one of said insulator members, and

a part of each of said open end portions, extending between one of said insulator members and said stator core, is exposed to said internal space of said casing, through said thin layer of electrically insulating material.

6. The electrically powered compressor as claimed in claim 1, wherein

each of said coil segments is formed to be substantially U-shaped, with a curved portion connecting two parallel linear portions, and

said refrigerant intake aperture is located such as to direct said flow of refrigerant onto a one of said pair of coil end portions that is formed of a plurality of said curved portions of said coil segments.

7. The electrically powered compressor as claimed in claim 1, wherein for at least one of said coil end portions of said stator core, a distance between said coil end portion and an electrically conductive member that is closest to said coil end portion and is external to said electric motor is made greater than, but no more than twice, an insulation distance that is specified in the Japan Industrial Standards.

8. The electrically powered compressor as claimed in claim 1, wherein said refrigerant intake aperture is positioned such that said refrigerant from said intake aperture is blown towards said at least one coil end

portion in a direction such as to circulate around an outer periphery thereof.

9. The electrically powered compressor according to claim 1, wherein said compressor section has a movable member which is directly coupled to a drive shaft of said electric motor, to be driven thereby.

10. The electrically powered compressor as claimed in claim 1, wherein said compressor section comprises a scroll-configuration compressor having a movable scroll member with a drive shaft which is directly connected to said drive shaft of said electric motor, for being eccentrically rotated thereby.

11. The electrically powered compressor as claimed in claim 1, wherein said casing is positioned with said drive shaft of said electric motor oriented horizontally.

12. The electrically powered compressor as claimed in claim 11, wherein said compressor section and said electric motor are disposed in series within said casing, with axes of respective drive shafts thereof oriented horizontally.

13. The electrically powered compressor as claimed in claim 1, wherein

each of said coil segments is formed to be substantially U-shaped, with a curved portion connecting two parallel linear portions

said stator core is formed with a plurality of axially extending slots in an outer periphery thereof, and

a plurality of said linear portions of said coil segments are successively stacked within each of said slots in said stator core.